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REMARKS

This application has been carefully reviewed in light of the Office Action dated February 6, 2007. Claims 40, 41, 44, 50, 51, 54 and 60 are in the application, with Claims 42, 43, 52 and 53 having been cancelled. Claims 40 and 50 are the independent claims. Reconsideration and further examination are respectfully requested.

Claim 54 was objected to for an informality. In response, Claim 54 has been amended in accordance with the Examiner's suggestion. Withdrawal of the objection is therefore respectfully requested.

Claims 40 to 44, 50 to 54 and 60 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,527,356 (Spurr). In response, dependent Claims 42 and 43 have been cancelled, and the substance thereof incorporated into independent Claim 40. Likewise, dependent Claims 52 and 53 have been cancelled, and the substance thereof incorporated into independent Claim 50. Accordingly, this should be viewed as a traversal of the rejection, and its withdrawal is respectfully requested as explained more fully below.

The present invention generally concerns distributing control software used by an image forming apparatus. Production lot information of the consumable unit is received, and a control software is selected based on the production lot information and operation information. The control software is then distributed to an external apparatus.

According to one feature of the invention, the production lot information indicates a production condition for the consumable unit.

In more detail regarding production lot information, a difference in the production lot means that when the same type of consumable parts are manufactured over a

long term, it is difficult to manufacture products having identical characteristics under exactly the same conditions in points of materials, environment, etc., and variations in specific properties of materials, changes in production environment, etc., are unavoidable. See Specification, paragraph [0098]. For example, depending on the lot of an organic photoconductor, a variation in the range of about 30 V occurs in a light area potential, even under conditions of the same light amount. See Specification, paragraph [0099].

Thus, by virtue of the arrangement of the present invention, in which the production lot information stored in a memory of the consumable unit indicates a production condition for the consumable unit, control software ordinarily may be selected to account for such differences, even in consumable units of the same type.

According to a further feature, in addition to receipt of the production lot information, operation information is also received. The operation information of the present invention is not necessarily the operation information of an entire image forming apparatus, but rather is operation information for the consumable unit itself, for example a number of prints of the consumable unit and the remaining amount of toner. See Specification, paragraphs [0006] and [0052].

Therefore, since the present invention also receives operation information of a consumable unit, it is ordinarily possible to select an optimum control software which takes into account the present operating conditions of a consumable unit of a given production lot, which may lead to more precise adjustment of control software and increased image quality.

Referring specifically to claim language, independent Claim 40 is directed to a software distributing system for distributing control software used by an image forming apparatus to an external apparatus via a network. The external apparatus is the image forming apparatus or an information processing apparatus connected with the image forming apparatus. The system includes a receiving unit configured to receive production lot information of a consumable unit which is stored in a memory of the consumable unit. The consumable unit is detachably located in the image forming apparatus, and the production lot information is output by the external apparatus. The system also includes a controller unit configured to distribute a control software, based on the production lot information, to the external apparatus via the network. The receiving unit is configured to receive operation information of the consumable unit, and further includes a selecting unit configured to select a control software based on the production lot information and the operation information received by the receiving unit. The controller unit is configured to distribute the control software selected by the selecting unit to the external apparatus. Additionally, the production lot information indicates a production condition for the consumable unit.

Independent Claim 50 is directed to a method substantially in accordance with the system of Claim 40.

The applied art is not seen to disclose or suggest the features of the present invention, and in particular is not seen to disclose or suggest at least the features of (i) receiving production lot information which is stored in a memory of a consumable unit and which indicates a production condition for the consumable unit, (ii) selecting a control

software based not only on the production lot information, but also on operation information of the consumable unit, and (iii) distributing the selected control software to an external apparatus via a network.

As understood by Applicants, Spurr is directed to a printer system in which identifier information is associated with a receiver substrate such as paper. A sensor reads the identifier information so that an image forming operation can be adjusted based on the identified receiver substrate. See Spurr, Abstract.

Page 2 of the Office Action asserts that Spurr (Column 17, lines 28 to 30) discloses receiving production lot information of a consumable unit, and page 4 of the Office Action asserts that this information indicates a production condition of the consumable unit.

However, the cited portions of Spurr simply disclose that "media-related information may include image-processing information related to using a specific batch of paper, laminate material, donor, or intermediate receiver." Spurr, Column 17, lines 28 to 30.

In this regard, as seen by Applicants, Spurr's media-related information simply relates to the types of media loaded in the printer, rather than necessarily indicating a production condition of the media. See Spurr, Column 18, lines 2 to 5 and Abstract. Thus, Spurr is not seen to disclose production lot information that indicates a production condition for the consumable unit, as claimed.

Moreover, Spurr's media-related information is not stored in a memory of the consumable unit. Rather, Spurr's media-related information is obtained directly from a

manufacturer over a network. See Spurr, Column 17, line 21 to Column 18, line 5. Thus, even if Spurr's media-related information could somehow correspond to the claimed production lot information, which is not conceded, it is not seen that the media-related information is stored in a memory of the consumable unit.

Therefore, Spurr is not seen to disclose or suggest receiving production lot information which is stored in a memory of a consumable unit and which indicates a production condition for the consumable unit.

Additionally, the cited portions of Spurr are not seen to disclose or suggest receiving operation information of the consumable unit. Rather, as noted above, Spurr's media-related information relates to the types of media loaded in a printer. See Spurr, Column 18, lines 2 to 5.

Accordingly, Spurr is not seen to be able to select control software based on the claimed production lot information and operation information of the consumable unit, or to distribute such control software to an external apparatus via a network.

As such, independent Claims 40 and 50 are believed to be in condition for allowance, and Applicants respectfully request same.

The other claims in the application are each dependent from the independent claims discussed above and are therefore believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

Moreover, entry of the amendment is proper procedurally, even though the application has been rejected finally. In particular, the amendments merely incorporate the subject matter of dependent claims which have already been considered. Thus, Applicants submit that no new issues are raised by the amendment.

Accordingly, entry of the amendment, and allowance of the claims, are respectfully requested.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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